AMENDMENTS TO THE CLAIMS

This Listing of Claims will replace all prior versions, and listings, of Claims in the specification.

Listing of Claims:

Claim 1 (original) A method of detecting a scene change in a digital video sequence having a plurality of frames, the method comprising:

calculating a first root mean squared (RMS) value for a first frame relative to a second frame and the second frame relative to a third frame;

calculating a first mean absolute difference (MAD) value for the first frame relative to the second frame;

determining if the first RMS value meets a first criterion;

determining if the first MAD value meets a second criterion; and

designating the second frame as a scene change frame at least partly in response to determining that both the first RMS value meets the first criterion and the first MAD value meets the second criterion.

Claim 2 (original) The method as defined in claim 1, wherein the first RMS value is color weighted.

Claim 3 (original) The method as defined in claim 1, further comprising storing an I-frame designation in a file for the second frame and storing a P-frame designation for a third frame in the file.

Claim 4 (original) The method as defined in claim 1, wherein the first RMS value is based at least in part on pixel luminance values and chrominance values of the first and second frames.

Claim 5 (original) The method as defined in claim 1, wherein the first RMS value is defined as 30 RMS (F i , F k) = + + 1 w .times. h x = 1 w y = 1 h Y i (x , y) - Y k (x , y) 2 + 2 + + 1 w .times. h x = 1 w / 2 y = 1 h / 2 U i (x , y) - U k (x , y) 2 + 2 + + 1 w .times. h x = 1 w / 2 y = 1 h / 2 V i (x , y) - V k (x , y) 2

where F.sub.i is the first frame, F.sub.k is the second frame, F(x, y) denotes the (x, y).sup.th pixel in frame F, w is a frame width and h is a frame height, Y(x, y) corresponds to a pixel luminance value, and U(x, y) and V(x, y) corresponds to chromaticity components, and, and are weighting coefficients for luminosity, chromaticity-blue and chromaticity-red components correspondingly.

Claim 6 (original) The method as defined in claim 5, wherein ===1.

Claim 7 (original) The method as defined in claim 1, wherein the first MAD value is calculated using luminance value and excluding chromaticity components.

Claim 8 (original) The method as defined in claim 1, wherein the first criterion is a first threshold and the second criterion is a second threshold.

Claim 9 (original) A method of detecting a scene change in a digital video sequence, the method comprising:

calculating a second temporal derivative RMS value for a first frame relative to a second frame and the second frame relative to a third frame; and

based at least in part on the second derivative value, determining that the second frame is a scene change frame.

Claim 10 (original) The method as defined in claim 9, wherein the determination that the second frame is a scene change frame is further based upon a mean absolute difference value calculated using at least luminosity information for the first and the second frames.

Claim 11 (original) The method as defined in claim 9, wherein the determination that the

second frame is a scene change frame is further based upon both an RMS value meeting a first criterion and the second temporal derivative RMS value meeting a second criterion.

Claim 12 (original) The method as defined in claim 9, wherein the second temporal derivative RMS value is greater than or equal to a first threshold.

Claim 13 (original) The method as defined in claim 9, wherein the second frame is designated as a scene change frame when the second temporal derivative RMS value is negative and has a greater absolute value than a first value.

Claim 14 (original) The method as defined in claim 9, further comprising calculating a first RMS value, wherein the first RMS value is color weighted and the second temporal derivative RMS value is based only on temporal components.

Claim 15 (original) The method as defined in claim 9, wherein the second temporal derivative RMS value is equal to (RMS(F.sub.i-1, F.sub.i)-2RMS(F.sub.i, F.sub.i+1)+RMS(F.sub.i+1, F.sub.I+2)), where F.sub.i-1 is the first frame, F.sub.i is the second frame, F.sub.i+1 is a third frame, and F.sub.i+2 is a fourth frame.

Claims 16-23 (cancelled)

Claim 24 (original) A method of determining which portions of a video sequence are to be intracoded, the method comprising:

calculating a first root mean squared (RMS) value for a first portion of the video sequence;

calculating a first mean absolute difference (MAD) value for the first portion of the video sequence; determining if the first RMS value meets a first criterion;

determining if the first MAD value meets a second criterion;

determining if the first MAD value meets a third criterion; and

causing an intracoding operation to be performed at least partly in response to at least two of the first, second and third criteria being met.

Claim 25 (original) The method as defined in claim 24, wherein the third criterion is that the MAD value is a local maximum.

Claim 26 (original) The method as defined in claim 24, wherein the first portion of the video sequence includes a first frame.

Claim 27 (original) The method as defined in claim 24, wherein the first portion of the video sequence includes a first GOV.

Claim 28 (original) The method as defined in claim 24, wherein the first portion of the video sequence includes a first GOP.

Claims 29-30 (cancelled)